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# 1992

## W.O. Atwater Memorial Lecture

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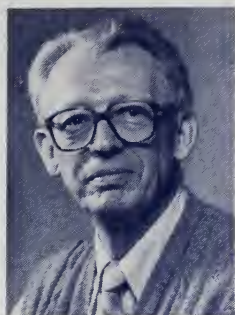
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# *The Irresistible Fascination of Carotenoids and Vitamin A*

By Dr. James A. Olson

3:30 p.m., April 7, 1992  
Anaheim Convention Center  
Room A9  
Anaheim, California

*sponsored by*  
The Agricultural Research Service  
United States Department of Agriculture  
*in cooperation with*  
The American Institute of Nutrition



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**James A. Olson** is a world-renowned researcher in the nutrition, function, metabolism, and pharmacological activity of vitamin A, retinoids, and carotenoids.

Dr. Olson is a distinguished professor in the department of biochemistry and biophysics at Iowa State University. He is also associate editor of *Modern Nutrition in Health and Disease* and is on the editorial board of the *European Journal of Clinical Nutrition*.

From 1985 to 1986, Dr. Olson was the Fogarty Senior International Fellow (NIH) at the London School of Hygiene and Tropical Medicine, University of London, and at the National Institute of Nutrition, Rome.

Dr. Olson has chaired and served on numerous national and international committees. Among them, he is a member of the organizing committee of the New York Academy of Sciences Conference on Carotenoids; deputy chairman of the Gordon Research Committee on Carotenoids; member of the technical advisory group, Vitamin A Programs, International Scientific and Technical Institute; and member of NASA's Working Group on Vitamin Requirements for Space Travel.

Dr. Olson was also the organizer and editor of the International Directory of Scientists and Administrators involved in the alleviation of vitamin A deficiency and nutritional blindness in humans, and the role of retinoids and carotenoids in embryological development.

Currently, his major research projects include the chemical synthesis, bioactivity and mode of action, and possible therapeutic use of water-soluble forms of vitamin A; the use of the ratio of vitamin A<sub>2</sub> to vitamin A<sub>1</sub> in plasma as an indicator of marginal vitamin A status; and the chemical syntheses and analysis of the metabolism of deuterated carotenoids in humans.

Dr. Olson has served as president of the American Institute of Nutrition (1986-1987), chairman of the U.S. National Committee of the International Union of Nutritional Sciences (1983-1986), chairman of the U.S. panel of the U.S.-Japan joint malnutrition panel (1989-1992), and a Wellcome lecturer in nutrition (1991). He has received an honorary degree from the University of Ghent, Belgium (1988), and the Borden Award of the American Institute of Nutrition (1989) and is a Fellow of the American Institute of Nutrition (1991).



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**The W.O. Atwater Memorial Lectureship** was established in 1968 by the Agricultural Research Service to honor the memory of a great scientist and to recognize scientists who have made unique contributions toward improving the diets of people around the globe.

**Wilber Olin Atwater (1844-1907)** was the foremost pioneer in nutrition research and education in the United States, and he was USDA's first chief of nutrition investigations. He is generally considered the father of modern human nutrition in this country because of his early research on nutrients, proteins, and food composition.

**The Agricultural Research Service**, the principal scientific research agency in the U.S. Department of Agriculture, helps provide knowledge and technology for the benefit of American farmers and consumers. The research includes promoting optimum human health and well-being through improved nutrition and family resource management.

**The American Institute of Nutrition** is the primary professional organization of nutrition research scientists in the United States. The Society was established in 1928 to develop and extend knowledge of nutrition and to facilitate personal contact between investigators in nutrition and related fields of interest. Most members of the Institute are university-based, basic researchers. Members are nominated and elected by their fellow scientists on the basis of demonstrated research competence and productivity in the field of experimental nutrition.



## Previous Lecturers

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**1991, R. Gaurth Hansen**, Distinguished Provost Emeritus and Distinguished Professor Emeritus of Nutrition and Food Sciences and Biochemistry, Utah State University, before the Institute of Food Technologists

**1990, Alfred E. Harper**, E.V. McCollum Professor of Nutrition, University of Wisconsin, before the American Institute of Nutrition at the annual meeting of the Federation of American Societies for Experimental Biology

**1989, Helen A. Guthrie**, Professor and Head, Nutrition Department, The Pennsylvania State University, before the Society for Nutrition Education

**1988, John E. Kinsella**, Liberty Hyde Bailey Professor of Food Chemistry and General Foods Distinguished Professor of Food Science, Cornell University, before the Institute of Food Technologists

**1987, Malden C. Nesheim**, Director, Division of Nutrition, Cornell University, before the American Institute of Nutrition at the annual meeting of the Federation of American Societies for Experimental Biology

**1986, Elsie Widdowson**, Department of Medicine, Addenbrooke's Hospital, Cambridge, England, before the Joint Meeting of the American Institute of Nutrition, American Society of Clinical Nutrition, and Canadian Society of Nutrition Science

**1985, Mark Hegsted**, Professor of Nutrition, New England Regional Primate Research Center, before the American Institute of Nutrition

**1984, Harold H. Sandstead**, Director, North Atlantic Area, Human Nutrition Research Center on Aging at Tufts University, before the American Dietetic Association

**1983, George H. Beaton**, Professor of Nutrition Science, Faculty of Medicine, University of Toronto, before the Western Hemisphere Nutrition Congress

**1982, Edwin M. Foster**, Director, Food Research Institute, University of Wisconsin, before the Institute of Food Technologists



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**1981, Joaquin Cravioto**, Professor of Pediatrics and Scientific Director, National Institute for Children's Health Sciences and Technology, Mexico City, before the International Congress of Nutrition

**1980, Ancel Keys**, Professor, Division of Epidemiology, University of Minnesota, before the Western Hemisphere Nutrition Congress

**1979, Hector F. DeLuca**, Professor, Department of Biochemistry, University of Wisconsin, before the American Institute of Nutrition

**1978, Robert E. Olson**, Professor, Department of Biochemistry, St. Louis University, before the American College of Physicians

**1977, Nevin S. Scrimshaw**, Institute Professor and Head of the Department of Nutrition and Food Science, Massachusetts Institute of Technology, before the Western Hemisphere Nutrition Congress

**1976, Emil M. Mrak**, Chancellor Emeritus, University of California at Davis, before the American Chemical Society

**1975, William J. Darby**, President, The Nutrition Foundation, Inc., before the American Dietetic Association

**1974, J. George Harrar**, President Emeritus, Rockefeller Foundation, before the American Association for the Advancement of Science

**1973, Marina v.N. Whitman**, Professor of Economics, University of Pittsburgh, before The American Home Economics Association

**1971, Jean Mayer**, Professor of Nutrition and Lecturer on the History of Public Health, Harvard University, before the National Biological Congress

**1970, Philip Handler**, President, National Academy of Sciences, and Chairman of the National Research Council, before the International Congress of Food Science and Technology

**1969, Albert Szent-Gyorgyi**, Director, Institute for Muscle Research, Marine Biological Laboratory, Woods Hole, Massachusetts, before the American Chemical Society

**1968, Artturi I. Virtanen**, Director, Biochemical Research Institute, Helsinki, Finland, before the Federation of American Societies for Experimental Biology

